

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

CharNor Enterprises

Illinois Manufacturing Extension Center

Work Flow Improvements Give Charnor Industries A Lift

Client Profile:

CharNor Industries is a remanufacturer and distributor of engines, transmissions, and steering components for industrial and construction equipment. Located in Milan, Illinois, the company employs less than 50 people.

Situation:

CharNor Industries runs an eight-step engine re-manufacturing process: a worn out industrial engine is first shipped to the company where it is then disassembled, cleaned, injected with a magnetic dye to identify cracks and other imperfections, and inspected. Next, replacement parts are ordered, machined, assembled, and finally, live tested. Because the engines arrive in various states of disrepair, measuring production rates according to industry standards or benchmarks can be somewhat difficult. However, at 31 man-hours per finished unit, the company's rate was well above industry norms of 20 man-hours per unit. Frustrated, CharNor Industries contacted the Illinois Manufacturing Extension Center (IMEC), a NIST MEP network affiliate, and asked the organization to identify and solve the problem.

Solution:

Through a combination of standard time studies, process observations, and system diagnostics, IMEC determined that productivity and output would dramatically improve if CharNor Industries held individual operators accountable to certain measurable performance standards. Further, IMEC suggested that the company invest in a new labor tracking software program to review the entire operation and identify bottlenecks and other constraints affecting productivity.

Operators within three engine teams--assembly, machining, and testing--now have five different measures posted within view of each team member. Each team knows what its contribution must be to ensure that there is a continuous flow of engines. By becoming more proactive, the company is able to manage production flow, preventing shortages of material in any one area. The software helps track labor against standard times for general classes of engines and track the individual productivity of a person at each work station.

Results:

www.mep.nist.gov



NIST is an agency of the U.S. Commerce Department's Technology Administration

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Improved engine production by 45 percent with less than a 20 percent increase in manpower.

Improved the quality of each finished engine dramatically.

Reduced total time from 32 to less than 20 hours per finished engine.

Testimonial:

“I’ve always felt that the Illinois Manufacturing Extension Partnership will not just solve a problem we’re dealing with, but look for other ways we can improve too. It’s the little things they do that make a difference.”

Charlie Arnold, President